TABLE OF CONTENTS

Page

TABLE

FIGURES

APPENDICES [in Volume II]

8.3 CULTURAL RESOURCES

In accordance with CEC regulations, this section evaluates the effects of the proposed project on cultural resources.

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. Numerous laws, regulations, and statutes, on both the federal and state levels, seek to protect and target the management of cultural resources. These include:

- Antiquities Act of 1906;
- Historic Sites Act of 1935;
- Reservoir Salvage Act of 1960;
- National Historic Preservation Act of 1966;
- National Environmental Policy Act of 1969;
- Executive Order 11593 (Projection and Enhancement of the Cultural Environment, 5/13/1971);
- 36 CFR 800 and CFR 60 (Advisory Council on Historic Preservation: Protection of Historic and Cultural Properties, Amendments to Existing Regulations, 1/30/1979, National Register of Historic Places, Nominations by States and Federal Agencies, Rules and Regulations, 1/9/1976);
- Revisions to 36 CFR 800 (Protection of Historic Properties, 1/10/1986);
- Archaeological and Historical Preservation Act of 1974;
- American Indian Religious Freedom Joint Resolution of 1978;
- Archaeological Resources Protection Act of 1979;
- California Environmental Quality Act of 1970;
- Native American Graves Protection and Reparation Act of 1990.

Collectively, these regulations and guidelines establish a comprehensive program for the identification, evaluation, and treatment of cultural resources.

The following section documents the efforts undertaken to determine whether cultural resources could be adversely affected by the implementation of the proposed project. Section 8.3.1 presents the environment that may be affected, Section 8.3.2 identifies the environmental consequences, and Section 8.3.3 discusses the cumulative effects associated with the proposed project. Section 8.3.4 indicates the mitigation measures to be implemented to avoid identified impacts. The following sections present the regulatory context. Specifically, Section 8.3.5 identifies the cultural resources laws, ordinances, regulations, and standards (LORS) applicable to the proposed project; Section 8.3.6 lists the involved agencies and agency contacts; and Section 8.3.7 discusses permits and scheduling.

8.3.1 Affected Environment

An archaeological survey of the facility and all infrastructure routes was completed. Consultation with the Colusa County Historic Records Commission, the State of California's Native American Heritage Commission (NAHC) and subsequent contact with Native American individuals identified by the NAHC was also completed. No significant archaeological resources were identified within the proposed project's Area of Potential Effects (APE). The specific boundaries of the archeological APE are shown on Figure 8.3-1.

A survey was conducted within the historic architectural APE to identify all historic architectural properties that were greater than 45 years of age. The historic architectural APE for this project was established in consultation with Gary Reinoehl (California Energy Commission), Denise Heick (Project Manager, URS Corporation), and Denise Bradley (Senior Landscape Historian, URS Corporation) on April 3, 2001. The APE consists of parcels of land that either border or contain project actions. Additionally the project area was reviewed to identify any properties pre-dating 1957 that were within a one-mile radius of the proposed project site and that would have views of the proposed project facility; this was done to consider visual effects to historic architectural properties. See Figure 8.3-1 for the location of the historic architectural APE.

8.3.1.1 Natural Environment

For a detailed description of the natural environment within which the facility is situated, the reader is referred to the appropriate sections of this document (e.g., Sections 8.2, Biological Resources, and 8.14, Water Resources).

8.3.1.2 Prehistoric Background

The Colusa Power Plant vicinity lies directly adjacent to one of the most intensively studied areas in California, the Sacramento/San Joaquin River Delta and adjoining sections of the Sacramento and San Joaquin valleys. Beginning in the last decade of the nineteenth century, avocational archaeologists recovered thousands of artifacts from numerous sites in the Delta vicinity. A general synthesis of these early works is found in Schenk and Dawson (1929).

The next series of excavations in the general region were conducted by student crews from Sacramento Junior College (SJC). Beginning in 1931, various sites adjacent to the Cosumnes River and Deer Creek confluence were excavated. Joined a few years later by crews from the University of California (UC), the SJC archaeologists continued their excavations within the Delta region. These efforts culminated in the milestone works of Lillard and Purves (1936) and Lillard, Heizer, and Fenenga (1939), both of which identified a sequence of cultural change within the Delta and adjacent vicinities.

The cultural sequence identified by Lillard and his colleagues (1936; 1939) contained three cultural periods (Early, Intermediate/Transitional, Late), which were based upon changes observed within the mortuary patterns and grave furniture recovered from their sample of sites. Lillard, Heizer, and Fenenga (1939) believed that the sequence represented a single cultural progression, the Early Period evolving into the Transitional Period, the Transitional Period evolving into the Late Period.

Nearly simultaneous with the early work in the Delta, archaeologists from UC began conducting excavations of sites located farther northward in the Sacramento Valley. Among the earliest of these was a series of excavations at three sites (CA-COL-1, -2, and -3) in Colusa County (Heizer, 1936; Heizer and Fenega, 1938; Heizer and Krieger, 1935-1936).

As more archaeological work was conducted within central California during the 1940s and 1950s, the cultural sequence developed by Lillard and his colleagues (1936; 1939) was refined and expanded to

accommodate the additional data including that collected from COL-1, -2, and -3. The most significant of these revisions was Beardsley's (1954) Temporal and Areal Relationships in Central California Archaeology, in which the Central California Taxonomic System (CCTS) was formally developed.

Of relevance to the current investigation was Beardsley's supposition that "the flow of traits was northward from Cosumnes Province" to the inhabitants of the Colusa Province (1954:78). Beardsley was not alone in this belief for in 1978 Elsasser made a similar statement when he claimed that the "Colusa District . . . seemed to be chiefly on the receiving end of influences exchanged back and forth between it and the Cosumnes District" (1978:45).

As archaeologists in central California began trying to incorporate their data into the CCTS, the limitations of Beardsley's system became apparent. Alterations to the CCTS began appearing in the literature of the discipline, with the doctoral dissertation of Fredrickson (1973) being of the most consequence.

After many debates and numerous revisions, the cultural sequence for the central California region, first defined by Lillard and his colleagues (1936; 1939), currently stands as follows:

Windmiller Pattern (ca. 3000 B.C. - 500 B.C.)

The artifact assemblage characteristic of this cultural manifestation includes a variety of flaked stone, ground stone, baked clay, and shell items reflecting exploitation of diverse subsistence resources and acquisition of materials from distant geographic areas through trade. The burial pattern of Windmiller cemeteries and grave plots is unique in that virtually all of the interments are ventrally extended, with the head oriented to the west. The primary exception to this burial pattern is that aged females were buried in a flexed position. Social stratification can be inferred from the burial practices of Windmiller peoples. Males appear to generally have higher status than females, as evidenced in their deeper and artifactually richer graves. Social status may have been at least partially inherited, for some female, child, and infant burials contained elaborate grave furniture, while others lacked such wealth (Moratto, 1984:201-207).

Berkeley Pattern (ca. 500 B.C. - A.D. 500)

The Berkeley Pattern represents a gradual shift in adaptation and material culture that appears to have originated within the San Francisco Bay region. The subsistence practices of Berkeley peoples differs from that of the Windmiller peoples in that the utilization of acorns for food seems to have increased dramatically. The reliance on acorns is evidenced in the increase in mortars and pestles recovered from Berkeley Pattern sites. Other differences in material culture include the occurrence of an extensive bone tool kit, unique knapping techniques, and certain types of shell beads and pendants within Berkeley Pattern sites. Burial practices of Berkeley peoples also differed from those of Windmiller Pattern sites. No longer were corpses placed into graves extended towards the west. Instead, Berkeley Pattern burials are flexed with variable orientation (Moratto, 1984:207-211).

Augustine Pattern (ca. A.D. 500 -A.D. 1880)

The Augustine Pattern reflects local innovation in technology, as well as the incorporation of new developments with traits of the Berkeley Pattern. The artifact assemblages of Augustine Pattern sites indicate an increased reliance on hunting, gathering, and fishing. Acorns appear to have become particularly important. Many burials continue to be flexed; however, cremation becomes the mortuary practice for high-status burials. Extensive trade networks developed to accommodate the resource and social needs of the burgeoning populations (Moratto, 1984:211-214).

8.3.1.3 Ethnographic Background

The present project area is situated within the ethnographic territory of the Patwin, who inhabited the western half of the lower Sacramento Valley and adjoining portions of the Coast Range (Figure 8.3-2). Their territory included the northern shores of Suisun Bay, the lower reaches of the Napa River, nearly the entire lengths of Cache and Putah creeks, and the Sacramento River between the present communities of Knights Landing and Princeton (Johnson, 1978; Kroeber, 1932, 1976).

Kroeber (1932, 1976) has provided the most complete ethnographic analyses of Patwin lifeways, while a very early account of the Patwin is found within Powers' (1877) study of California Indians. Johnson (1978) has synthesized the existing data and written a general account of this particular Native American group.

Powers stated that the Patwin were one of the largest nations of the state, yet they have no common government, and not even a name for themselves (1877:218). Typical of aboriginal California, among the Patwin the largest recognized political unit was the triblet. In general, a Patwin triblet consisted of a single primary and several auxiliary villages situated within a definable territory. Powers utilized the term *pat-win*, as it was a word which they all employed to signify man or person (1877:218).

Johnson (1978:350) does not identify any named villages within the general vicinity of the project area. The closest Patwin villages to the project area are situated approximately 14 miles to the east along the banks of the Sacramento River (Johnson, 1978:350).

Similar to other native Californians, the Patwin groups who inhabited the valley floors placed their primary villages atop high ground along the major watercourses. Structures in this region were generally dome shaped and covered with earth (Kroeber, 1976; Powers, 1877).

A broad spectrum of plant and animal resources were consumed by the Patwin. Important plant foods included the ubiquitous acorn, various seeds, buckeye, pine nuts, numerous berries, wild grapes, roots, and bulbs. Many animals were hunted, including tule elk, deer, bear, numerous small mammals, turtles, waterfowl, and various other bird species. Among the animals not considered to be dietary fare were canines (dog and coyote), various raptors, frogs, reptiles, caterpillars, grizzly bears, and predator animals in general (Johnson, 1978:355).

Among the Patwin inhabiting the larger watercourses, fishing played a significant subsistence role. Anadromous runs of salmon and steelhead, as well as resident fish were taken. It is reported (Johnson, 1978:355) that the Patwin erected at least two fish weirs across the Sacramento River in the vicinities of the modern communities of Colusa and Grimes.

8.3.1.4 Historic Background

8.3.1.4.1 The Hispanic Period

As a result of the Cabrillo expedition of 1542-1543, the southbound passage of the Manila Galleon along the coast after 1565, and subsequent voyages of exploration by Drake in 1579, Cermmenho in 1597 and Vizcaino in 1602, the California coastline was familiar to navigators by the end of the sixteenth century (Donely et al., 1979). Conversely, exploration of the interior did not commence until the late eighteenth and early nineteenth centuries.

The Spanish annexation and colonization of Alta California, as manifested in the religious-military mission system, produced profound changes in the cultures of the indigenous population. Missions were established in Northern California at San Jose, San Francisco (San Francisco de Asis), San Rafael, and Sonoma (San Francisco Solano). The missions resettled and concentrated the aboriginal hunter-gatherer

population into agricultural communities. The Mission tribes were christianized and converted to a form of peasantry which was in rapid decline in Europe.

Following the depletion of the local coastal aboriginal groups, the missionaries turned to Northern California's interior for neophytes. Among the groups recruited during this second wave of proselytization were the Patwin. Patwin neophytes have been identified within the baptismal records of the missions at San Francisco, San Jose, and Sonoma (Johnson, 1978).

Jurisdiction over Alta California was established by Mexico in April 1822. During the Mexican Period (1822-1848), control over this remote area by the central and local Mexican authorities was never strong. Rather, the Mexican Period was one of a slow disintegration of control by the Mexican government. In 1833, the mission lands were secularized, expropriated, and given out as private ranches during the next decade in the form of land grants (Donely et al., 1979). The project area does not appear to have been part of any Mexican land grant, the closest being the Larkin Children's Rancho which was established in 1844 along the western bank of the Sacramento River (Hoover et al., 1990:47).

8.3.1.4.2 The American Period

A major factor leading to the disintegration of Mexican control of California was pressure from the United States. Initial contacts were made by private citizens, such as the November 1826 visit by Jedediah Smith to the San Gabriel Mission, the 1827 trek of James Ohio Pattie, and the 1832 stop by Ewing Young at Los Angeles. These and other sojourners brought the news of California back to the United States, helping trigger the immigration of U.S. citizens into California. The Mexican Government became increasingly agitated by the continued influx of U.S. citizens into California. The semi-official 1844 and 1845 expeditions into California by John Charles Fremont further distressed the Mexican Government (Beck and Haase, 1974).

The Patwin were also greatly impacted by these early American intrusions into the region. In 1827, Jedediah Smith led a party of trappers through the Patwin territory before embarking upon his famous journey across the Sierra Nevada (Beck and Haase, 1974). Smith was quickly followed by others, including a group of trappers from the Hudson Bay Company who entered the region in 1832. Infected by malaria, these trappers spread the disease among the aboriginal communities of the region. It is reported that this pestilence often killed the inhabitants of entire villages (Cook, 1955; Powers, 1877). Cook (1955) estimates that up to 75 percent of the population perished as a result of diseases introduced by non-native peoples.

Those Patwin who survived the epidemics were then subjected to the mass incursion of Euro-Americans into the region following the discovery of gold at Sutter's Mill in 1848. In response to a lumber shortage, John Sutter opened a sawmill in the Sierra Nevada foothills, operated by John Marshall. Marshall selected a location for the sawmill on the South Fork American River, about 45 miles northeast of Sutter's Fort. During final stages of completion of the mill's tailrace, Marshall discovered gold. Attempts to keep the discovery silent were unsuccessful (Hoover et al., 1990:72). By the middle of 1848, word of the find was spreading like wildfire and the rush for gold was on, changing forever the character of the state. From a non-Indian population of about 14,000 in 1848, California's population jumped to nearly 100,000 by the close of 1849, and to over 220,000 by late 1852 (Paul, 1965:17-21, 25).

Native peoples were no longer viewed as a source of labor as during the mission era, but instead as obstacles to progress. During the Gold Rush period, the wholesale removal of the Patwin from their lands began (Johnson, 1978; Schwaderer, et al., 1979). Subsequently, the Patwin living in the southern portion of their territory became so overwhelmed by the diseases and encroachment of the Euro-Americans, that by 1923-1924 Kroeber could not identify any living members in this region (Johnson, 1978:352).

The continued friction between Mexico and the United States ultimately led to the Mexican War of 1846-1847. California became part of the United States in 1848 when the territory was formally ceded in the treaty of Guadelupe Hidalgo following the U.S. victory over Mexico (Beck and Haase, 1974; Bethel, 1969).

The State of California was admitted to the Union in 1850, and by 1851, 27 counties were established. Among the original counties was Colusa County, in which Monroeville was the original county seat. Monroeville was established on the ranch of Uriah P. Monroe, on the old Rancho Capay. Monroe settled here during the early years of the Gold Rush, and in 1851, Monroeville was selected as the seat of Colusa County. By 1853, the seat was moved to Colusa and Monroeville was abandoned to become agricultural land (Francis and Huberland, 1999:13; Hoover et al., 1990:80).

The development of the mining industry in California, along with the rapid population growth, led to shortages of raw materials and food. Besides mining, other industries soon developed to meet the needs of the miners and growing population centers, including lumbering, ranching, and agriculture. Much of the Sacramento Valley and surrounding foothills consisted of open range upon which large herds of cattle and sheep could be raised. At first, uncontrolled grazing was common; however, the prime agricultural land was soon fenced, and livestock was moved to higher ground.

Among the early American agriculturalists in the project vicinity was Dr. Hugh J. Glenn, who came in 1849 to California from Missouri. Glenn worked the gold camps of the American River for a time, returned home, and brought his family to California. In 1867, Glenn purchased 7,000 acres of Rancho Jacinto from Isaac Sparks. He added more property to his holdings, and by 1874 owned some 55,000 acres, including 41,000 acres planted in wheat. Glenn ultimately became known as the "Wheat King of the West" (Hoover et al., 1990:95).

In March 1891, a portion of Colusa County was removed to become Glenn County, with the county seat established at Willows. Glenn County was named in honor of Dr. Glenn, while Willows was named for a willow pond or spring that represented one of the few watering places in the plains east of Stoney Creek (Gudde, 1969:365). This stand of willow trees grew along a portion of Willow Creek and was visible from a great distance, serving as a landmark for travelers in the area. The town of Willows was established in 1876 by W. Johnson and M. Hickheimer, who built a store at the watering place. In 1878, the Southern Pacific Railroad was built to Willows, and a post office was established in 1880 (Francis and Huberland, 1999:13; Hoover et al., 1990:97; White, 1979).

Closer to the project area is the small agricultural community of Maxwell. This town, established in 1878, was named for early resident George Maxwell (Gudde, 1969:196). Also situated nearby are the remnants of the community of Sites. According to Gudde (1969:312), the town was named after local landholder John H. Sites in 1887 by C. E. Grunsky.

8.3.1.4.3 Irrigation and the Development of Colusa County

The project area is located to the west of the small town of Delevan. The history of this area is also related to the development of ranching, farming, and irrigation within the west Sacramento Valley. In 1849, the gold rush brought miners to the area, many of whom stayed once they were unable to make a living searching for gold. They found that the climate made the Sacramento Valley amenable to farming, but seasonal water supplies limited the crops to dry farming, primarily wheat, and ranching.

By the 1880s, wheat farming had become less profitable for several reasons. First, the intensive dry farming was beginning to deplete the soil, and crops were thinning. Second the completion of the transcontinental railroad reduced the West's dependence on locally grown wheat. Finally, a drought in 1898 drove many farmers to abandon farming and the Sacramento Valley.

William S. Green, one of the founders of Colusa, envisioned revolutionizing agriculture in the area by constructing a major canal that would divert water from the Sacramento River to the farms along the western side of the Sacramento Valley. Not all landowners in the area were convinced of the need for a canal, but the passage of the Wright Irrigation District Act on March 7, 1887 by the state legislature encouraged the formation of irrigation districts by giving them powers similar to those of municipalities. On November 22, 1887, the Central Irrigation District was founded in Colusa County (as described above, Glenn County was part of Colusa County until 1891) and construction on the Central Canal began.

Litigation over rights-of-way soon hampered the project, construction stopped, and portions of the canal were not built. The fate of the Central Irrigation District was not unique; most of the forty-nine districts proposed under the Wright Act were never completed (Davis, 1984: 13-15). In 1897 a new law, the Bridgeford Act, was adopted that made forming irrigation districts easier. In 1903 the Central Canal and Irrigation Company purchased the works, with the hopes of irrigating a smaller area. Despite its progress on the canal, the Central Canal and Irrigation Company had financial troubles similar to those of the Central Irrigation District (JRP and Caltrans, 2000: 23).

On June 15, 1909, the Kuhn banking firm from Pittsburgh founded the Sacramento Valley Irrigation Company, which purchased the Central Canal and Irrigation District (Davis, 1984: 30). After the Kuhn bank failed in 1915, the Sacramento Valley West Side Canal Company was in receivership with the State Railroad Commission fixing the rates. During these years farmers discovered that rice could be grown on the alkaline and heavy clay soils. However, the fields had to be flooded during the growing season, a practice that required massive amounts of water.

Land adapted to rice culture consists of any soil with tight subsoil in which losses from seepage are minimal, especially as the land is continuously flooded during the growing season. To keep rice fields constantly covered during the growing season, water must be supplied at the fields in sufficient quantity to provide for evaporation losses, for transpiration from the growing plants, and for consumers' waste from imperfect regulation of the supply (Supplement Report).

Although it demanded lots of water, rice farming was attractive to many farmers, because prices were high due to a tremendous demand caused by World War I. Unfortunately, the existing irrigation system was inadequate to meet the increased demand, and the State Railroad Commission would not increase rates to pay for expansion (Davis, 1984:63).

During this period, several other counties in the Sacramento Valley were organizing irrigation districts. By 1929, there were 15 irrigation districts in the valley between Sacramento and Redding. Over half of these were constructed between 1916 and 1919 during the years of the great expansion of the rice industry (Supplement Report). Landowners within the boundaries of the Central Irrigation District also organized and had the goal of purchasing and then expanding the system. A committee named the organization the Glenn-Colusa Irrigation District. Although some landowners protested the purchase (and the fees that would be levied), the organization overcame opposition through legal means and purchased the system from the Sacramento Valley West Side Canal Company for $1,000,000 in 1920 (JRP and Caltrans, 2000:23).

The canal was finally finished, but the weather and the economy combined to deal the district a serious blow. In 1920 rice crops were lost due to an early and continuous rain that resulted in the "Crash of 1920." Ten years later, the Great Depression further devastated farmers. Holders of poorer lands increasingly were delinquent on their payments to the irrigation district, Reclamation District 2047, and taxes to the county. Those unable to pay lost their land. The irrigation and reclamation districts became rich in land but poor in fees. In the late 1930s, Charles Lambert headed the reorganization of district lands and the sale of the property back to farmers at low prices. Options to buy went first to those who had lost their lands. World War II increased demand for grains, and once again rice was a profitable crop.

The war years were a period of growth for the towns of Colusa County. Many of the farming structures with the project area were built at that time.

In the 1950s, the Bureau of Reclamation constructed the Shasta Dam and questioned Glenn-Colusa Irrigation District's water rights. Litigation ensued and the Secretary of the Interior finally settled the disagreement in 1964 in favor of the district. In the 1960s, agriculture continued to be the major industry in Glenn and Colusa counties. Gross receipts in Colusa County in 1965 were $29,786,500 from field crops, followed by fruits and nuts at $6,123,000, and livestock at $5,431,000 ("Map of Colusa County California, Colusa County Chamber of Commerce" 1966). Today the land surrounding the project area is used for rice farming and for growing all types of vegetables.

8.3.1.4.4 Electric Power Transmission

The earliest hydroelectric generating plants in the United States were built in the 1880s and 1890s. These were generally of two different types. In the eastern United States, steam-powered generating plants provided most of the power, with the remainder provided from hydroelectric facilities. Both types of plants were located near the consumers of electricity and required short transmission lines with low voltages. In the west, hydroelectric plants provided a much greater share of electric power. However, these hydroelectric plants were located far from cities — in California, they were in the Sierra Nevada — and required long transmission lines with high voltages. For new transmission lines to operate successfully at greater distances, new technologies were developed.

In the 1890s, systems were built that were generally ten to twenty miles long. In 1899, an 83-mile-long line was built in southern California, and in 1900, a 142-mile-long system was built from the Sierra Nevada to Oakland. By 1915, at least two lines were over 200 miles long. This early period of hydroelectric development culminated in more efficient transmission systems in the early 1920s, among the first of which was the transmission line from the Pit 1 power plant in Shasta County to the Vaca-Dixon substation in Solano County. This line was built southwest from Pit 1 to the Cottonwood substation near Redding. From Cottonwood, it ran south, through the APE for this project in Glenn and Colusa counties to Vaca-Dixon.

At Vaca-Dixon, the power was fed into the San Francisco Bay area distribution systems.

> "To carry power from the Pit River to users in the San Francisco Bay Area, engineer Frank G. Baum designed a 220,000 volt transmission system. It is more efficient to transmit electricity over long distances at high voltages, but the power is also more difficult to control. Baum designed PG&E's Pit River project as a 220 kV system from the outset with all of its components arranged to handle voltages that had not yet been tested commercially. When Pit 1 first went on line its output, combined with that of the Hat Creek plants, went out at 110 kV, matching the voltage of existing PG&E high tension lines. Voltage was stepped up to 175 kV in 1923 (?), to 220 kV after the 70,000 kw line went in. At the time it started up, its machinery was similar to that of scores of other plants built throughout the country in the late 1910s and 1920s, except in one respect — it was larger than most, and in particular, its transmission system operated at a record voltage.
>
> Since it was completed, changes to Pit 1 and its parts have been relatively minor. The most significant changes were made in 1946 when a new dam and a second intake were built creating a forebay to store water for use in times in high demand.
>
> The larger Pit River system was expanded with the construction of Pit 3 in 1925, followed by several other plants, all downstream of Pit 1. In 1967, a new substation was built at Round Mountain in the lower Pit River valley as part of the development of an

intertie system linking northern and southern California with transmission lines of increased capacity. This ended the original relationship between Pit 1 and the Vaca-Dixon substation" (Hay and Corbett 1992, Appendix Historic Resources Inventory Form for the Pit No. 1 Power Plant: 4-5).

8.3.1.5 Resources Inventory

The methods utilized to inventory the Colusa Power Plant project area for archaeological resources consisted of archival research, Native American consultation, and a pedestrian reconnaissance of the entire project APE (Figure 8.3-1). Appendix I contains Native American consultation correspondence.

The methods utilized to inventory the Colusa Power Plant project area for historic architectural resources consisted of archival research, contact with local agencies, and a site survey of the entire project APE (Figure 8.3-1). See Appendix J for the Historic Architecture Report.

8.3.1.5.1 Archival Research

8.3.1.5.1.1 Archaeological Resources

Archival research included a literature review and record search of ethnographic and historic literature and maps, federal, state, and local inventories of historic properties, archaeological base maps and site records, and survey reports on file at the Northwest Information Center at Sonoma State University. The Information Center serves as a regional office of the State Historic Preservation Office. The purpose of the record search was to ascertain whether any cultural resources had been previously identified within or adjacent to the project area and to identify any previous archaeological investigations that may have included the current APE.

The record search revealed that no archaeological resources have been previously recorded within the current APE. It appears that various portions of the Colusa Power Plant project APE have been subjected to archaeological investigations on three previous occasions (Figure 8.3-3). Unfortunately, the exact portions and to what extent is unclear. It is also unclear whether the lack of archaeological resources within the APE is the result of not having been previously inventoried or due to a lack of past human activities within the general vicinity.

This confusion is the result of the lack of detailed project area descriptions, survey methodologies, and/or project maps in two mid-1960 inventory reports. The initial investigation was completed by Brigham Arnold in 1964 in association with the construction of the PG&E Canadian Gas Line through California. The records on file at the information center warn that the boundaries of this study, as depicted on their base maps, are approximate and that it is unclear whether the survey included all sections of the gas line. As such, it is unclear whether the current APE was included in the Arnold (1964) inventory. If the current project area was a part of that investigation, a corridor approximately 800 feet wide within the eastern portion of the APE was previously inventoried for archaeological resources.

A second, nearly contemporaneous survey, was completed in 1965 by Treganza, Edwards, and King in advance of construction of the Tehama-Colusa Canal. Much of the current APE may have been inventoried for archaeological resources during this investigation; however, similar to the Arnold (1964) study, project boundaries on the information center base maps are approximate as a result of the small scale of the project maps included in the original report. It is also unclear whether the entire canal corridor or just select areas were examined. If the Treganza, Edwards, and King (1965) study did include the current project vicinity, the western half of the current APE was inventoried for archaeological resources.

Most recently, a small portion of the current APE was inventoried for archaeological resources by Infotec Research, Incorporated and Biosystems Analysis, Inc. (IRI and BAI, 1990) during their survey of the PGT-PG&E Pipeline Expansion Project. Specifically, the extreme southern end of the utility corridor extending southward from the southeast corner of the PG&E Compressor Station to the southern edge of the APE was included in the IRI and BAI investigation.

As mentioned above, no archaeological resources have been previously identified within the current APE.

8.3.1.5.1.2 Historic Architectural Resources

Research was conducted for three different purposes: preliminary research, research for the historical overview, and research on the individual properties. Research was conducted in March and April 2001.

Preliminary research included a literature review and record search of historic literature and maps, federal, state, and local inventories of historic properties. The following list includes libraries, other repositories, and sources of information that were consulted or contacted and the subjects that were researched:

Colusa County Agricultural Agency for rice farming history.

Colusa County Assessor's Office, Colusa, California for APN maps and information.

Colusa County Historical Commission (Kathy Moran) for Colusa County history.

Colusa County Planning Department, Colusa, California for building permits.

Colusa County Public Records, Colusa, California for background information on area and the Glenn-Colusa Canal.

Colusa County Public Works Department (Jon Wrysinski) for Colusa County history, including bridges and rice farming.

Colusa County Recorder (Wylie Anderson) for survey and subdivision maps.

Christopher Doerr (Garcia & Associates) for a report on an evaluation of a portion of the transmission line from Pit 1

Earth Sciences Library, University of California, Berkeley for historic maps.

Glenn-Colusa Irrigation District, Willows, California (Ben Tennock) for information on the Glenn-Colusa Canal and Glenn-Colusa Irrigation District (GCID) and general history of the region and a map of the Delvan Unit of the GCID)

Glenn County Assessor's Office, Willows, California for APN maps and information.

Glenn County Planning Department, Willows, California for building permits.

Pacific Gas & Electric Company (Stan Mishoika) for history of transmission lines.

San Francisco Public Library for information on Colusa County history.

State Board of Equalization Assessors Office for information on transmission lines.

Water Resources Archives, University of California, Berkeley for information on the Glenn-Colusa Canal.

The following list includes persons or agencies that were contacted but from which a reply was not received:

Depue Warehouse Company (Kevin Dennis), for a history of the rice warehouse in Delevan.

Emerald Farms (Allan Etchepare), for information on the farm located within the APE.

Holthouse Water District, for district history.

Pacific Gas & Electric Company (Jim Clausen), for information on the bridge over the Glenn-Colusa Canal at Dirks Road.

Additionally, the book *Where Water Is King: The Story of Glenn-Colusa Irrigation District* by Cynthia F. Davis (1984) provided an excellent source of information and contextual history for the development of the area and the Glenn-Colusa Irrigation District. The newly revised *Water Conveyance Systems in California, Historic Context Development and Evaluation Procedures* prepared jointly by JRP Historical Consultants and the California Department of Transportation (Caltrans, 2000) was consulted for contextual information on irrigation districts and for the evaluation of the Glenn-Colusa Canal and GCID.

The portions of the 230 kV transmission lines that are located within the APE for this project are part of a larger system that historically delivered electricity from the Pit 1 Power Plant to the San Francisco Bay area via transmission lines that ran from Pit 1 to the Cottonwood Substation and then to the Vaca-Dixon Substation. This line was online by 1922. *National Register of Historic Places and California Register of Historical Resources Evaluation of CA-SHA-2939-H and CA-SHA-2920-H, Shasta County, California* (Hair, 2000) evaluated a segment of the 230 kV transmission line (Trinomial CA-SHA-2939-H) that runs from the Pit 1 Power Plant to the Cottonwood substation, approximately 59 miles away. This report was consulted for information on its historical context, evaluation of the transmission line, and references and for information on the plans for the original transmission towers used in the ca. 1920 construction, contained in Appendix C and labeled as "Pit River 220,000 Volt Transmission Line, Mt Shasta Power Corp (PG&E Co)." These plans were designed by Frank G. Baum, Chief Engineer with PG&E. Two of the plans — "Standard Tower, 220 K.V. Transmission Line" and " "Type 'M' Tower, 222K.V. Line" — appear similar to the towers located within the APE for the Colusa Power Plant project.

Hair found the transmission line from Pit 1 to the Cottonwood Substation (Trinomial CA-SHA-2939-H) to be significant under National Register of Historic Places (NRHP) criterion A and California Register of Historical Resources (CRHR) criterion 1 "because of the significant effect the Pit 1 Hydroelectric Development had on the development of the San Francisco Bay region" and under NRHP criterion C and CRHR criterion 3 "for its revolutionary engineering feat of transmitting high voltage electricity over a great distance" (Hair, 2000: 12). No period of significance was established. The transmission line does not retain its integrity because "Most of the original towers have been replaced…," and it is not eligible for NRHP or CRHR (Hair, 2000: 13).

The report by Duncan Hay and Michael Corbett, *Historic Resources Assessment Report for the Pit 1 Hydroelectric Project, Shasta County, California, revised draft* (1992), was reviewed for its historical context on the development of electrical generation and transmission and the evaluation of the Pit 1 Power Plant. Hay and Corbett found the Pit 1 Power Plant eligible for the NRHP under criteria A and C:

> "Under Criterion A, it is significant at the local level for its impact on local economic and social life, replacing much of the old agricultural economy and ending the isolation of the area from the mainstream of the State. And it is significant at the State level for its place

> in the hydroelectric development of the State, representing the beginning of the hydroelectric development of a major river by PG&E and the confidence of an era of growth. Under Criterion C, it is significant at the national level for its engineering and architecture, with one of the largest generating capacities of its day and an unusual degree of embellishment of its plant, in comparison with hydroelectric plants around the country. The whole system was unified by an architectural idea, focused on the power house. The result was a powerful visual image that represented the importance of Pit 1 to PG&E and to the development of hydroelectric power in California. In addition, it represents the work of Frank Baum, one of the leading hydroelectric engineers of his day in the United States.
>
> "The following features of the Pit 1 Hydroelectric Plant appear to be contributors to its significance: the transformer yard, power house, generating machinery, Fall River diversion dam, Intake No. 1, canal, tunnel, surge tank and spillway, valve house, penstocks, tail race, and towers for transmission lines A and B. The following appear to be non-contributors: the forebay dam, intake, forebay, transformers, and towers for transmission line C." (Hay and Corbett 1992, Appendix Historic Resources Inventory Form for the Pit No. 1 Power Plant: 5).

It should be noted that the transmission towers that contribute to Pit 1's significance are those located immediately adjacent to the Pit 1 Power Plant.

Standard references were consulted in the preparation of this report: National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation was used in evaluating properties under NRHP criteria; CEQA Guideline Summary: Historical Resource Sections 15064.5, 15126.4, 15325, 15332, Appendix G (California Office of Historic Preservation, 1999) was used in applying the California Register of Historical Resources criteria; and Instructions for Nominating Historical Resources to the California Register of Historical Resources (California Office of Historic Preservation, 1997) was used in preparing the Historical Resources Inventory (DPR 523) records.

Jody Stock (Architectural Historian, B.S., Architectural Studies, Preservation, 1995, University of Utah) and Roxana Khakpour (Architect URS Corporation; B.A., Architecture, 1996, University of California Berkeley) conducted research. Stock also prepared the historical context for irrigation and Colusa County.

Michael Corbett (Senior Architectural Historian, URS Corporation) evaluated the properties within the APEs, prepared the DPR 523 records and wrote the historical context on transmission lines. Corbett (Ph.D. Candidate, History of Architecture, University of California Berkeley and A.B., 1973, Anthropology and American Studies, Princeton University) has over 27 years of experience as an architectural historian and has particular expertise in the history of the built environment in California. He meets the Secretary of the Interior's standards for professionals for historians and architectural historians.

Denise Bradley (Senior Landscape Historian, URS Corporation) assisted Corbett in the evaluation of the Glenn-Colusa Canal and GCID and prepared the technical report for historic architecture. Bradley (Master of Landscape Architecture, 1986, Louisiana State University and B.S. in Agriculture, 1979, University of Tennessee) has over 15 years of experience in historic resources analysis and has worked in California since 1993. She meets the Secretary of the Interior's standards for professionals for historians and historical landscape architects.

8.3.1.5.2 Native American Consultation

To further assist in securing information regarding potential cultural resources located in or near the project location, a request for information was submitted to the Native American Heritage Commission (Appendix I).

The NAHC provided a list of contacts, all of whom were notified about the project and questioned about their concerns and/or knowledge of resources in the area (Appendix I).

Responding by telephone to our request was Mr. Kesner Flores of the Cortina Rancheria of Wintun Indians of California. Mr. Flores had no specific knowledge of resources within the APE; however, he indicated that a number of archaeological sites had been identified to the south in the Sites vicinity and along the PG&E gas pipeline.

In addition, Mr. Flores, as a representative of the Cortina Rancheria Environmental Protection Agency, had questions about air quality issues. Mr. Flores was put in contact with the appropriate individuals, who addressed his questions. Because these discussions did not concern cultural resources, they are not included in this section.

No other responses were received.

8.3.1.5.3 Field Reconnaissance

8.3.1.5.3.1 Archaeological Resources

The archaeological field reconnaissance of the archaeological APE commenced on March 7, 2001 and was completed on March 23, 2001. Specifically, the project APE was visually inspected utilizing approximately 20-meter-wide parallel transects. Although surface visibility was excellent throughout the APE, no archaeological resources were identified during the course of the current investigation.

Mr. Mark Hale (Project Archaeologist, URS Corporation) conducted the pedestrian reconnaissance of the project's APE. Mr. Hale holds a B.A. in anthropology from the University of California, Berkeley, and has completed his course work and defended his thesis for a M.A. in cultural resources management from Sonoma State University. He has over 15 years of professional experience in conducting and managing cultural resource investigations in California and elsewhere in western North America and Pacific Islands.

Mr. Hale was assisted by Mr. Russell Bevill (Project Archaeologist, URS Corporation). He received his B.A. in anthropology from California State University Chico where he is also pursuing a M.A. in anthropology. Mr. Bevill has over 10 years of professional experience in conducting cultural resource investigations in California and elsewhere in western North America and the Pacific Islands.

8.3.1.5.3.2 Historic Architectural Resources

Brian Vahey photographed the properties within the APE and surrounding vicinity March 8 and 11, 2001. A survey of the APE and surrounding area was conducted by Jody Stock (Architectural Historian) on March 13, 14, and 20, 2001 to take field notes used in the preparation of the DPR 523 records. A survey of the APE was conducted by Michael Corbett (Senior Architectural Historian, URS Corporation) and Denise Bradley (Senior Landscape Historian, URS Corporation) on April 6, 2001. Additional field notes and photographs were taken on that date.

8.3.2 Environmental Consequences

CEQA requires that the significant impacts to archaeological or historical resources be determined. Archaeological and historic resources are those that are listed in or determined eligible for listing in the California Register of Historical Resources, or are included in a local register of historical resources. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource has integrity and meets the criteria for listing on the California Register of Historical Resources. Resources already listed or determined eligible for the National Register or the California Historic Landmarks 770 or higher, are also by definition eligible for the California Register. Historic resources included in historic resource inventories prepared according to California State Office of Historic Preservation guidelines (and thus included in the State Inventory of Historic Resources) or designated under county or city historic landmark ordinances may be eligible if the designation occurred during the previous five years.

For a resource to be eligible for the California Register, it must satisfy ***all*** of the following three standards:

1. A property must be significant at the local, state or national level, under one or more of the following criteria:

    a. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States.

    b. It is associated with the lives of persons important to the nation or California's past.

    c. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

    d. It has yielded, or may be likely to yield, information important to the prehistory or history of the State or the Nation;

2. A resource must retain enough of its historic character or appearance to be recognizable as a historic property, and to convey the reasons for its significance; and

3. It must be fifty years old or older (except for rare cases of structures of exceptional significance).

The California Register regulations define "integrity" as "the authenticity of an historic resource's physical identity, evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation, 1990:17). That is, it must retain enough of its historic character or appearance to be recognizable as a historical resource. California Register regulations specify that integrity is a quality that applies to historic resources in seven ways: location, design, setting, materials, workmanship, feeling, and association. A property must retain most of these qualities to possess integrity.

A project is considered to have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource. Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired.

8.3.2.1 Archaeological Resources

As a means to determine the potential effects of the proposed project to archaeological resources, a number of tasks were completed, including archival research, Native American consultation, and a field reconnaissance. The project APE for archaeological resources is shown on Figure 8.3-1. No archaeological resources were identified within the project APE during the course of these efforts. As such, there will be no effect to known cultural resources with project implementation.

Although no archaeological resources were identified on the surface of the project's APE, it is possible that with project implementation previously undiscovered archaeological resources may be exposed during construction activities. Unless properly evaluated and managed, this could result in a potentially significant impact to cultural resources.

Indirect impacts to archaeological resources of the proposed project are not expected, because archaeological sites are typically only affected by direct (physical) impacts (Caltrans, 1991:5-2). Once the proposed project is in place, further impacts to archaeological resources due to operation or maintenance are not anticipated.

8.3.2.2 Historic Architectural Resources

To determine the potential effects of the proposed project on historic architectural resources, a number of tasks were completed, including archival research, field survey, preparation of historical contexts, and evaluation of significance of all properties 45 years of age or older under National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria.

Within the APE, there are six properties that are at least 45 years of age. The locations of these properties are shown on Figure 8.3-4. None of these properties had been previously evaluated for significance under NRHP or CRHR criteria.

Of the six properties evaluated for NRHP and CRHR significance, four do not appear be eligible for the NRHP or have significance under CRHR criteria. These include the

small animal feeder located on APN 11-14-21;

group of ranch buildings located on Section 1 (APN 11-14-4);

farmstead located on Section 6 (APN 11-22-1); and

Teresa Creek Bridge.

For the purposes of CEQA, these four properties are not historic resources.

The two remaining properties within the APE are small sections of larger properties, and for both more research would be required in order to provide a complete evaluation. These properties are (1) the 230 kV transmission line owned by PG&E, and (2) the Glenn-Colusa Canal and Glenn-Colusa Irrigation District. These properties are described below.

8.3.2.2.1 Two 230 kV Transmission Lines

A small portion of these two 230 kV transmission lines — approximately two miles — is located within the APE for this project. They consist of two parallel north-south high voltage (230 kV) electrical power transmission lines, each consisting of steel towers, insulators, and conductors (connecting cables). Each tower carriers two circuits (Mishioka, pers. comm., 2001). The towers in the two parallel lines are similar but not identical. The base of each tower flares outward to four legs. The upper part of each tower is

vertical and supports three crossarms, each of which carries a hanging insulator at each end. The conductors are strung from the insulators.

From the PG&E Compressor Station, located within the APE, the transmission lines run north to the Cottonwood Substation (approximately 72 miles away) and south to the Vaca-Dixon Substation (approximately 70 miles away) (Mishioka, pers. comm., 2001).

During the early 1920s, a transmission line was built from the Pit 1 Power Plant in Shasta County to the Vaca-Dixon substation in Solano County. This line was built southwest from Pit 1 to the Cottonwood substation near Redding. From Cottonwood, it ran south, through the APE for this project in Glenn and Colusa counties to Vaca-Dixon.

Because significant portions of the line have been rebuilt, it is not clear whether the section that is located within the APE for this project is original.

The sections of the two 230 kV transmission lines that are located within the APE are part of a larger system that transmitted power from the Pit 1 Power Plant to the Bay Area. Specifically, the sections of the two 230 kV transmission lines that are located within the APE are part of the transmission lines between the Cottonwood and Vaca-Dixon substations. The sections of the transmission lines with the APE are not individually significant. However, if either of the transmission lines between the Cottonwood and Vaca-Dixon substations were significant, then these sections may have significance as contributing features to the larger property.

An evaluation of the transmission lines between the Cottonwood and Vaca-Dixon substations has not been done. However, this system would appear to have the potential to be significant under NRHP criteria A and/or C. Potential areas of significance would be in the development of electrical power in northern California, its impact on the development of the economy, as an example of transmission line engineering in the 1920s, and as an example of the work of engineer Frank Baum, one of the leading hydroelectric engineers of his day in the United States. Before the eligibility of either of the transmission lines could be determined, more research would be required to more fully assess the significance within the appropriate historical contexts, to document the history of the properties, to establish a period of significance, and to document the integrity of the character defining features. Following this, the contributing status of the sections of the transmission lines within the APE could then be established.

The proposed project will involve an electrical transmission line interconnection to the existing 230 kV transmission lines. PG&E will ultimately own and operate the interconnection. The proposed interconnection evaluated in this AFC represents a likely description of this project component. It may, however, be modified by PG&E during final design. The proposed action would involve two pairs of PG&E transmission lines that would loop in and out of the proposed site's switchyard, as described in Chapter 5 and shown on the Site Plan, Figure 3.3-1. These PG&E transmission lines would connect to the existing lines at two places. The portion of the existing lines between these two new connections would be removed. This proposed action will impact the two existing transmission lines.

At this time the status of the two 230 kV transmission lines as historic resources is not known. However, if these were to be shown to be contributors to NRHP-eligible properties, it would appear that the addition of the two electrical line interconnections and the removal of a small portion of the conductors (connection cables) would have a less-than-significant impact. This would be a small change within the larger overall system (between the Cottonwood and Vaca-Dixon substations). These changes would not alter the transmission within the APE such that their significance would be materially impaired. These changes would not alter any individual towers which appear to be an original design feature of the transmission lines nor would they alter the transmission lines alignment or location — both of which would likely be character defining features of a historic system.

8.3.2.2.2 Glenn-Colusa Canal and Glenn-Colusa Irrigation District (GCID)

A portion of the GCID's Delevan Unit irrigation infrastructure, including laterals, ditches, valves, concrete turnouts and gates, and a bridge at Dirks Road, are located within the APE for this project. The laterals, ditches, and various concrete diversion structures appear to date from the original irrigation district construction (ca. 1920s). The bridge at Dirks Road dates from ca. 1960 when it was built or renovated at the same time that the gas pipeline was built to the PG&E Compressor Station (Wrysinski, pers. comm., 2001).

A one-and-a-half to two-mile portion of the Glenn-Colusa Canal is located within or borders the APE for this project. The canal is dirt lined with rock or rubble riprap at the bridge abutment at Dirks Road. There is a levee on either side of the canal and a dirt maintenance road on top of each levee.

The GCID provides irrigation water to 175,000 acres of farmland in Glenn and Colusa counties. The Glenn-Colusa Canal, the main water distribution canal for the GCID, diverts water from the Sacramento River at a point just east of the town of Artois. Water travels southwesterly through the roughly 65-mile canal. The canal finally terminates just south of the town of Williams near Interstate 5.

The portions of the Glenn-Colusa Canal and other GCID features that are within the APE are part of a larger property — the GCID. The portions of the canal and irrigation system within the APE are not individually significant. However, if either the Glenn-Colusa Canal or the GCID were significant, then these portions may have significance as contributing features to the overall canal or irrigation system.

An evaluation of the GCID or Glenn-Colusa Canal has not been done. However, the GCID and the Glenn-Colusa Canal would appear to have the potential to be significant under NRHP criteria A and/or C. Potential areas of significance would be in the development of irrigation districts and irrigation infrastructure in the Sacramento Valley, development of twentieth-century farming in Colusa County, and/or as an example of early twentieth-century irrigation engineering. Before the NRHP eligibility of either the GCID or Glenn-Colusa Canal could be determined, more research would be required to more fully assess the significance of these properties within appropriate historical contexts, to document the history of the properties, to establish a period of significance, and to document the integrity of the features of the properties. Following this, the contributing status of the portions the GCID system within the APE could then be established.

Within the APE, the proposed project's roadway access crosses over the Glenn-Colusa Canal via the bridge (ca. 1960) at Dirks Road. Some strengthening of the bridge deck may be required during construction. If needed, all associated improvements would be limited to the existing roadway surfaces. However, the proposed project does not involve any portions of the canal itself and would not alter or change the canal in any way.

Within the APE, the proposed project intersects other features of the GCID on McDermott Road in two places:

- At Teresa Creek Bridge, the project intersects a GCID ditch that is labeled "D-8b" on the GCID map (Tennock, pers. comm., 2001). The Teresa Creek Bridge, which is not a historic resource, will be replaced. This proposed bridge replacement will not alter or change the irrigation ditch in any way.

- At the intersection of McDermott Road and Delevan Road, the intersection on the northeastern and southeastern corners will be widened. A GCID ditch that is labeled "41-1c" on the GCID map (Tennock, pers. comm., 2001) is located to the east of McDermott Road. A GCID ditch that is labeled "D-5a 3" on the GCID map (Tennock,

pers. comm., 2001) is located to the south of Delevan Road. However, the proposed intersection widening will not alter or change the irrigation ditches in any way.

The proposed project would have no impact to the portion of the Glenn-Colusa Canal and other features of the GCID that are located within the APE.

8.3.3 Cumulative Impacts

8.3.3.1 Archaeological Resources

Given that project implementation would not result in effects to known important cultural resources, it is unlikely that the proposed project could have significant cumulative effects to cultural resources. As noted above, however, it is possible that previously undiscovered archaeological resources may be exposed during construction activities. Unless properly evaluated and managed, this could result in a cumulative effect to such inadvertently exposed resources.

8.3.3.2 Historic Architectural Resources

Given that the proposed project implementation will not effect any historic architecture resources, there will be no significant cumulative effects to historic architecture resources.

8.3.4 Mitigation Measures

The California Environmental Quality Act of 1970 (CEQA) requires that if project implementation results in significant impacts to important cultural resources, then alternative plans and/or mitigation measures must be considered.

8.3.4.1 Archaeological Resources

Although no cultural resources have been identified within the APE, there is a possibility that buried archaeological resources occur within the confines of the archeological APE. Unless properly identified, evaluated, and managed, construction of the proposed project could result in a significant impact to the resource(s). With appropriate consultation by a qualified archaeologist, this impact would be mitigated to a less-than-significant level.

CULT-1 Retain a Qualified Archaeologist

Prior to the start of project-related vegetation clearance, earth-disturbing activities, or project site preparation, a qualified professional archaeologist will be retained as the cultural resources specialist (CRS) who will be responsible for implementation of mitigation measures CULT-2, CULT-3, and CULT-4.

CULT-2 Cultural Resources Monitoring and Mitigation Plan

Prior to the start of project-related vegetation clearance, earth-disturbing activities, or project site preparation, the CRS shall prepare a Cultural Resources Monitoring and Mitigation Plan (CRMMP), identifying general and specific measures to minimize potential impacts to sensitive cultural resources.

CULT-3 Worker Training

Prior to the start of earth-disturbing activities, the CRS shall prepare and implement an employee training program for the protection of cultural resources.

The CRS will provide cultural resources training to all project managers, construction supervisors, and workers. The designated trainer will provide the workers with a set of procedures for reporting any sensitive resources that may be discovered during project-related ground disturbance and the work curtailment procedures that the workers are to follow if previously unknown cultural resources are encountered during construction. Initial training will occur prior to the start of project-related vegetation clearance, earth disturbing activities, or project site preparation and continue throughout the project construction period as needed for all new employees.

Training at the project site may be discontinued after all foundations at the site are completed and the CRS has inspected the site and determined that no cultural resources will be impacted. Training shall continue for project personnel working in the vicinity of other project components that will disturb native soils.

CULT-4 Construction Monitoring

The CRS or their delegated monitor shall be present at times the specialist deems appropriate to monitor construction-related ground disturbance, including grading, excavation, trenching, and/or augering in the locations specified in the CRMMP.

8.3.4.2 Historic Architectural Resources

There would be no significant impacts to historic architecture resources within the APE. For this reason, no mitigation measures are required.

8.3.5 Cultural Resources Laws, Ordinances, Regulations, and Standards

The proposed project will be implemented in accordance with the applicable laws, ordinances, regulations, and standards identified below. These LORS are also listed in Table 8.3-1.

Because the Lead Agency for the project is the CEC, CEQA is the regulation of most consequence. CEQA requires that public or private projects financed or approved by the State of California must assess the effects of the undertaking upon cultural resources. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance.

In addition to CEQA, Section 7050.5 of the California Health and Safety Code would become applicable if human remains associated with the Native American occupation of the vicinity were discovered. This regulation requires that a County Coroner examine any discovered human remains and contact the NAHC if the remains are determined to be both archaeological and Native American. In compliance with Public Resources Code Section 5097.98, The NAHC would then be responsible for identifying a most likely descendent (MLD) to inspect the remains and make recommendations for their treatment.

If the project ultimately requires some level of federal involvement (e.g., Section 404 permit) compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, would become necessary. Section 106 requires federal agencies to identify cultural resources that may be affected by any undertaking involving federal lands, funds, or permitting. In addition, the significance of the resources that may be affected by that action must be addressed using established criteria (36 CFR 60.4) for the NRHP. The criteria for NRHP eligibility are listed in 36 CFR 60 as follows:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association, and

(a) That are associated with events that have made significant contributions to the broad pattern of our history; or

(b) That are associated with the lives of persons significant in our past; or

(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded, or may be likely to yield, information important in prehistory or history.

If a resource is determined to be eligible to the NRHP, Section 106 of the NHPA (80 Stat. 915; 16 U.S.C. 470) and its implementing regulations (36 CFR 800) require that effects of the proposed project to that resource be determined. If NRHP eligible resources are identified, that would be adversely affected by the implementation of the project, then prudent and feasible measures to avoid or reduce these adverse impacts must be taken. In addition, the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on these measures. The ACHP has adopted regulations (36 CFR 800) that implement this commenting authority.

On the local level, compliance with the Colusa County General Plan (CCGP) may be necessary. According to the CCGP, relevant goals of the County include:

Community Character "Objective g" To preserve historic buildings, landmarks, and places of historical significance;

Resource Conservation "Objective p" To conserve and explore historical resources, including archaeological sites; and

Human Resources "Objective o" To encourage appreciation of the county's heritage by preserving reminders of our past, such as the Princeton Fairy, the Stone Corral, and the Grand Island Shrine.

To achieve these objectives, a number of Resource Management Policies targeting the management of cultural resources have been adopted by the County. The Cultural Resource Policies that have been adopted include:

CO-22 The preservation and re-use of historical sites and structures in the county should be encouraged;

CO-23 The county should apply for landmarks status or national register listing for any historic sites which may be eligible;

CO-24 The county shall encourage and cooperate with cities, special districts, state and federal agencies, and private landowners in acknowledging and preserving the county's cultural heritage, historical and archaeological structures, sites, and landmarks;

CO-25 An archaeological survey should be required prior to approval of any project which would require excavation in an area known to contain archaeological resources.

As the proposed project will not result in impacts to known cultural resources (important or otherwise), and does not involve the issuance of a discretionary permit from the county, none of these policies and

measures currently apply. In the event that this status changes, however, compliance with CEQA, Section 106, and/or the implementation of the mitigation measures discussed within Section 8.3.4 will satisfy the County's concerns for cultural resources.

8.3.6 Involved Agencies and Agency Contacts

Unless consultation with SHPO becomes necessary, the NAHC is the only agency involved with the management of cultural resources for this project. Appendix I contains the correspondence with the NAHC concerning this particular project.

In addition, the Colusa County Planning Department will review and comment on this AFC. Specific contact information for this agency is also listed below, should the need for consultation arise.

Issue	Agency/Address	Contact/Title	Telephone
Native American traditional cultural properties	Native American Heritage Commission	Ms. Debbie Treadway, Associate Government Program Analyst	(916) 653-4038
Federal agency NHPA Section 106 compliance	California Office of Historic Preservation 1416 9th Street, Room 1442 Sacramento, CA 95814	Dr. Knox Mellon, SHPO	(916) 653-6624
Colusa County General Plan Compliance	Colusa County Department of Planning and Building 200 12th Street Colusa, CA 95932	Mr. David Kelly, Planner	(530) 458-0508

8.3.7 Permits Required and Permit Schedule

Other than certification from the CEC, no state, federal, or local permits are required by the project for the management of cultural resources. As described previously, consultation with SHPO and ACHP would be required under Section 106 if federal involvement is to occur and significant cultural resources were to be affected by the project.

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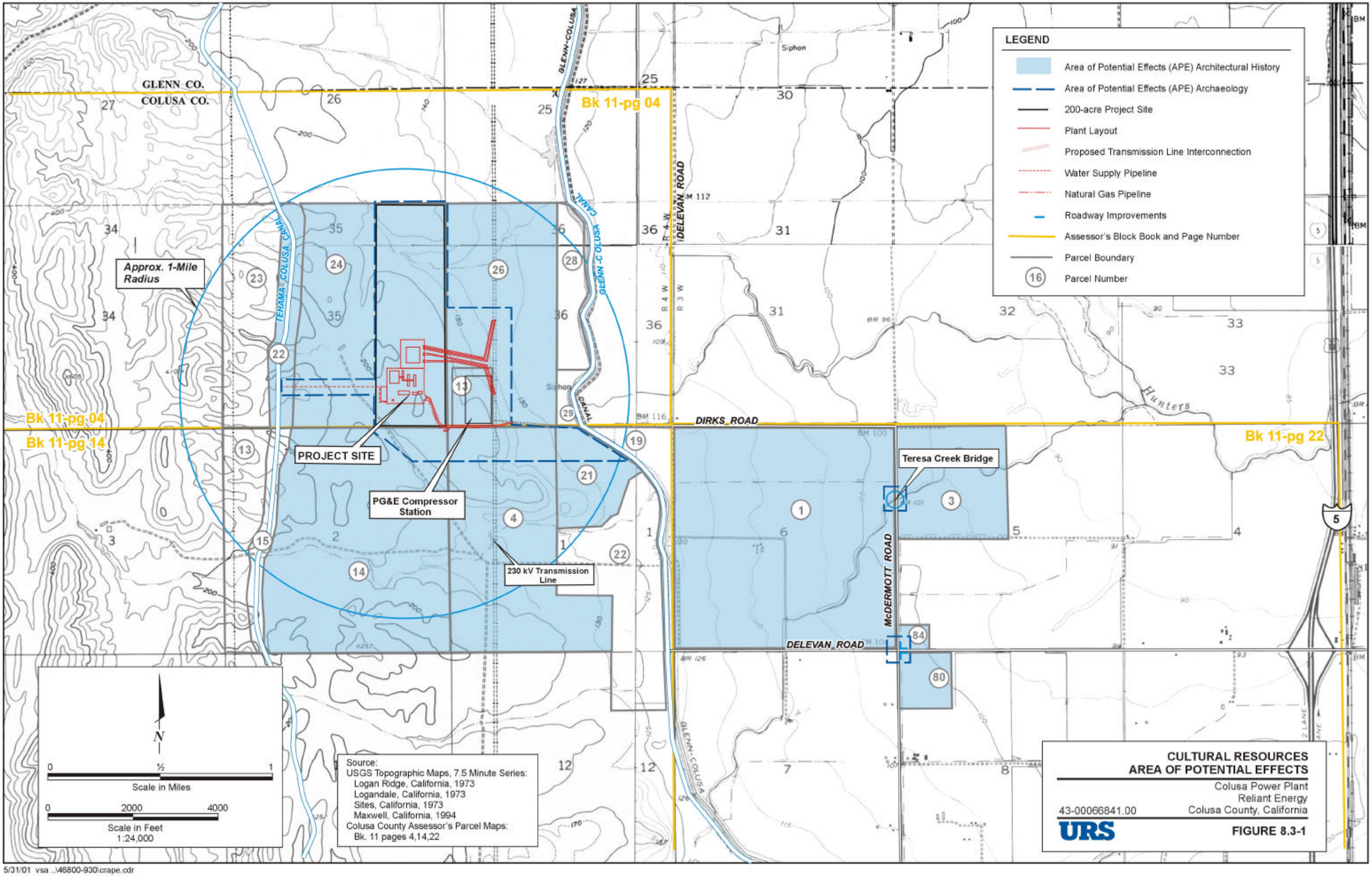
Table 8.3-1
Applicable Cultural Resources Laws, Ordinances, Regulations, and Standards

Law, Ordinance, Regulation, or Standard	Applicability	AFC Reference
CEQA	Project construction may encounter archaeological resources	Section 8.3.5
Health and Safety Code Section 7050.5	Construction may encounter Native American graves, Coroner calls NAHC	Section 8.3.5
Public Resources Code Section 5097.98	Construction may encounter Native American graves, NAHC assigns Most Likely Descendent	Section 8.3.5
Colusa County General Plan	Colusa County Goals; Community Character "Objective g" To preserve historic buildings, landmarks, and places of historical significance; Resource Conservation "Objective p" To conserve and explore historical resources, including archaeological sites; and Human Resources "Objective o" To encourage appreciation of the county's heritage by preserving reminders of our past, such as the Princeton Fairy, the Stone Corral, and the Grand Island Shrine.	Section 8.3.5



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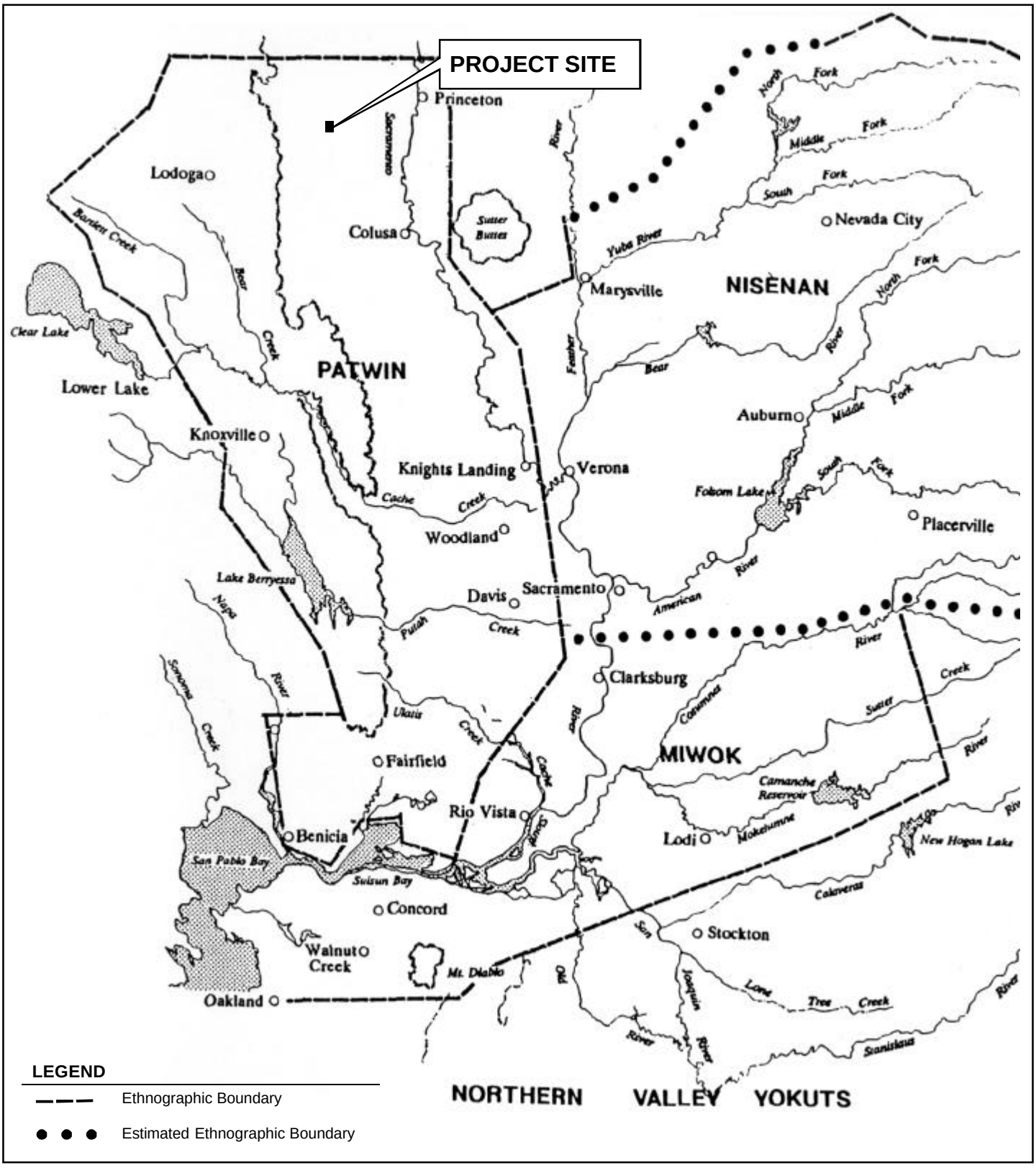

Source:
Map After Johnson, 1978; Levy, 1978;
and Wilson and Towne, 1978.

N

0 10 20 30 Miles

0 10 20 30 Kilometers

MAP OF ETHNOGRAPHIC TERRITORIES

Colusa Power Plant
Reliant Energy
43-00066841.00 Colusa County, California

URS

FIGURE 8.3-2

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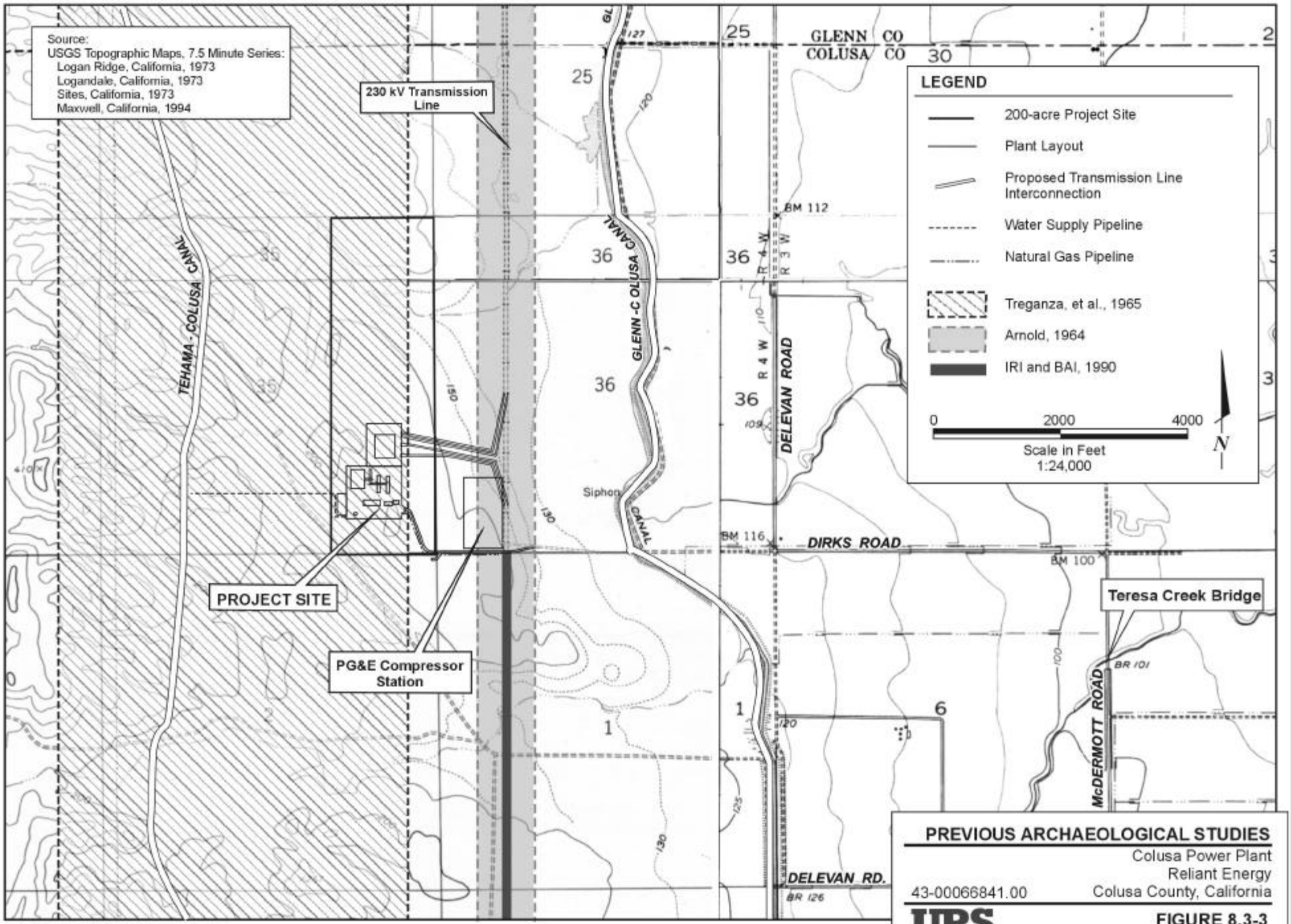

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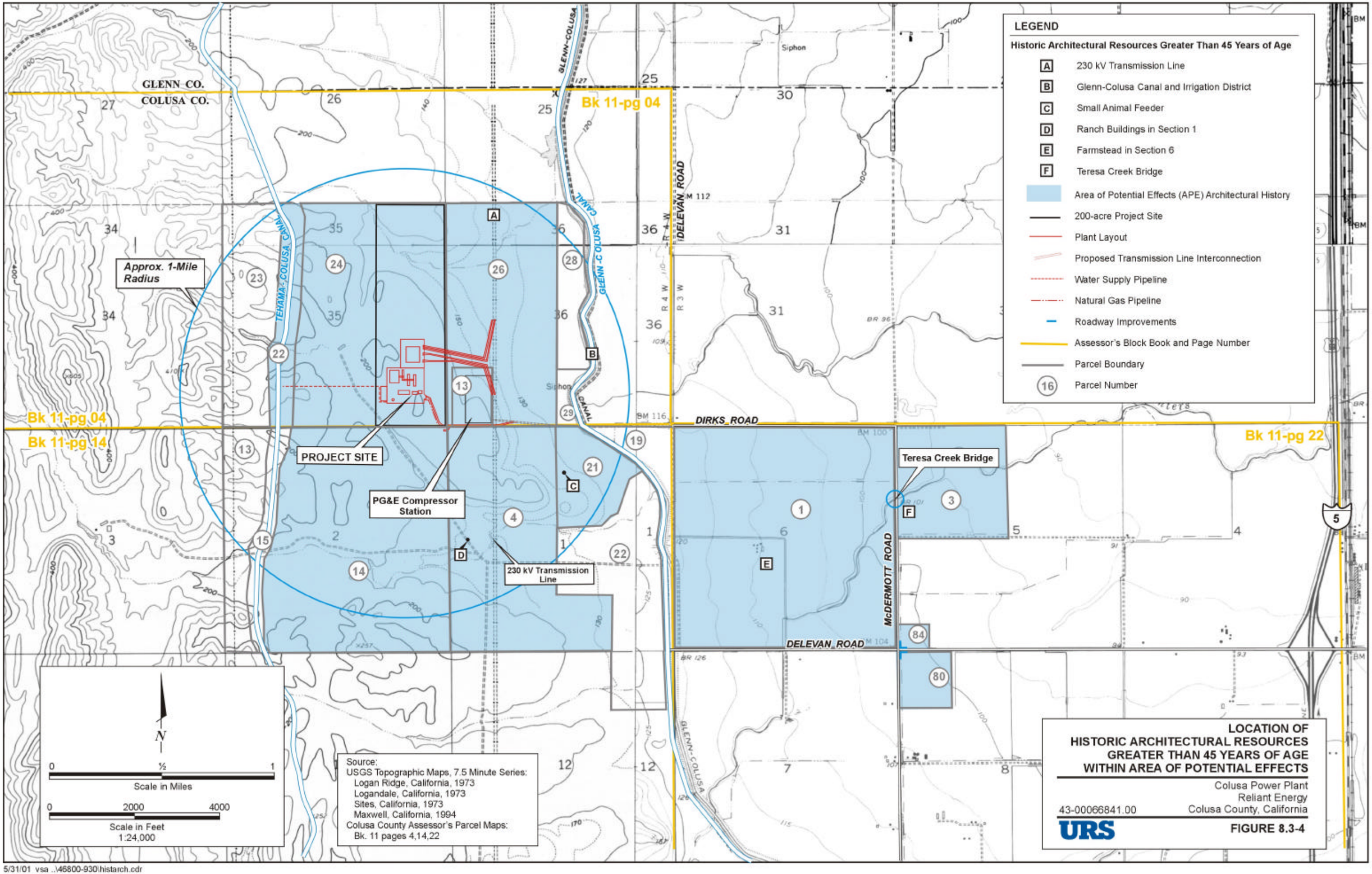
PREVIOUS ARCHAEOLOGICAL STUDIES

Colusa Power Plant
Reliant Energy
43-00066841.00 Colusa County, California

URS

FIGURE 8.3-3



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